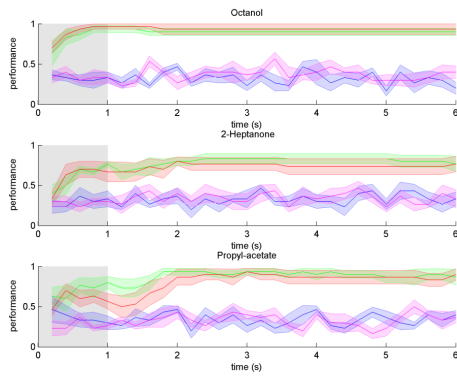


| | Early | Middle | Late | Early | Middle | Late |
|----------------|-------|--------|-------|-------|--------|-------|
| Octanol | 0.2* | 0.12* | 0.44* | 0.06 | 0.12* | 0.11* |
| Butanol | 0.26* | 0.29* | 0.79* | 0.04 | 0.06 | 0.12* |
| 2-heptanone | 0.05 | 0.17* | 0.53* | 0.04 | 0.18* | 0.28* |
| Propyl acetate | 0.01 | 0.06 | 0.03 | 0.22* | 0.11* | 0.82* |

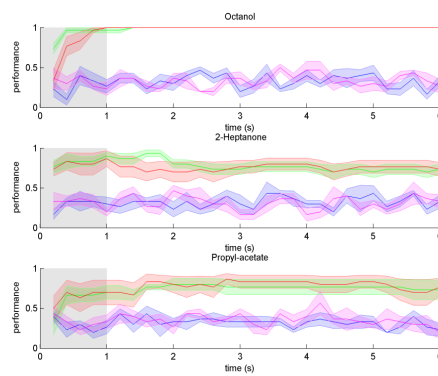
Supplementary electronic information S1.

Mean performance distances between classifier-based curves and spike number curves shown in figure 2, based on responses of Or74a and Or24a OSNs to octanol, butanol, 2-heptanone and propyl acetate. Early = 0 – 400 ms after stimulus onset; Middle = 450 ms – 2 s; Late = 2.05 s – 6 s. * = $p < .01$, with Bonferroni's correction.

A



B



Supplementary electronic information – S2

Performance of classifier on responses after 5 and 20 minutes exposure to octanol.

Decoding performance of PSTH-based classifier of Or74a OSN in discriminating three odours before (green) and after (red) continuous exposure to octanol for 5 minutes (A) and 20 minutes (B). Blue and magenta curves represent the performances of PSTH-based classifier after trial-odour combination shuffling of before and after exposure trials respectively. Shaded area around each line: SE.